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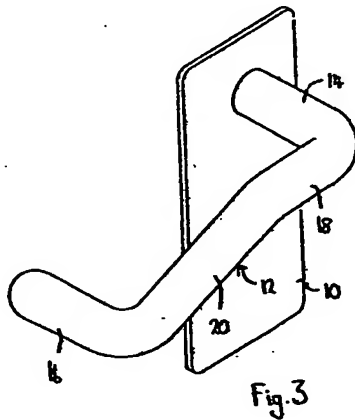
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(58) Field of search  
A4L  
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(54) Door handle

(57) The door handle 12, which may be pivotable or fixed, has a manual engagement portion 20 which is inclined to the horizontal at 10°-20°, preferably 15°. The handle is particularly easily operated by a person who is elderly, arthritic or otherwise infirm.



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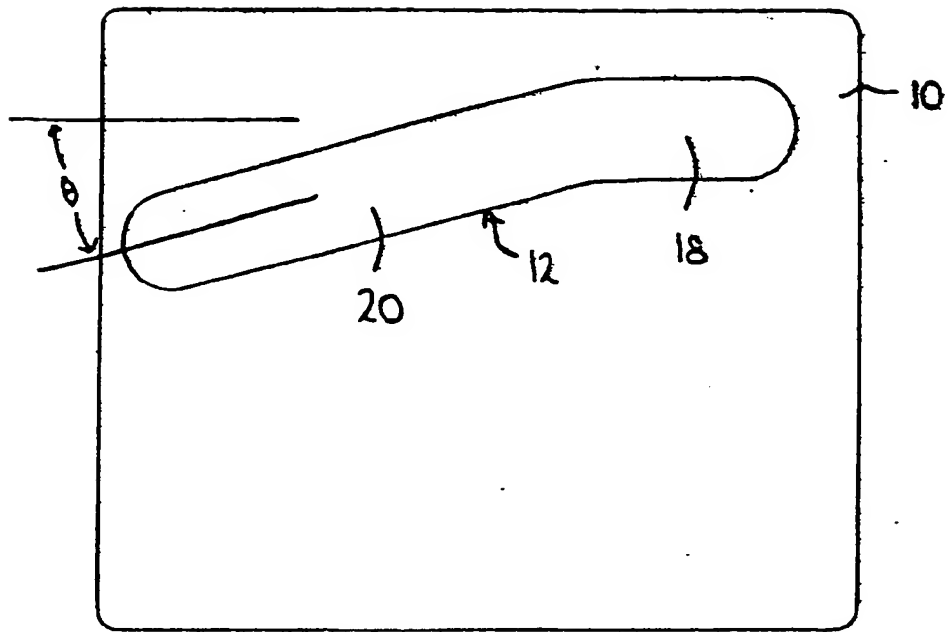


Fig. 1

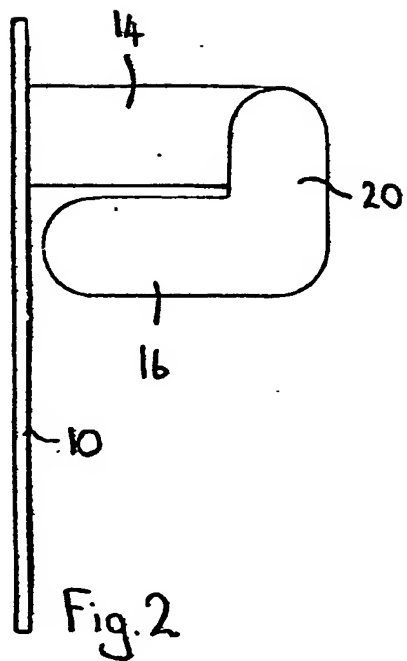


Fig. 2

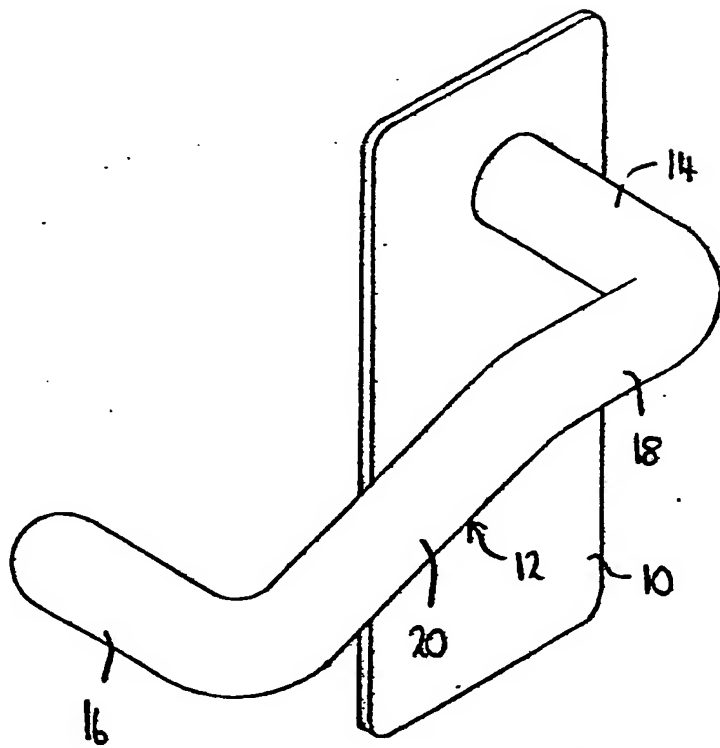


Fig. 3

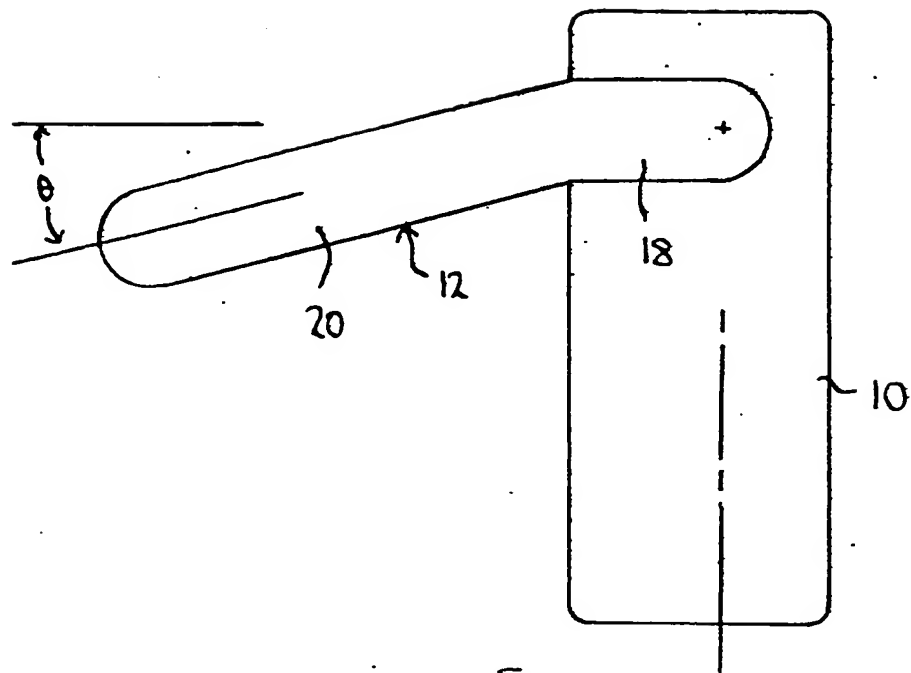


Fig. 4

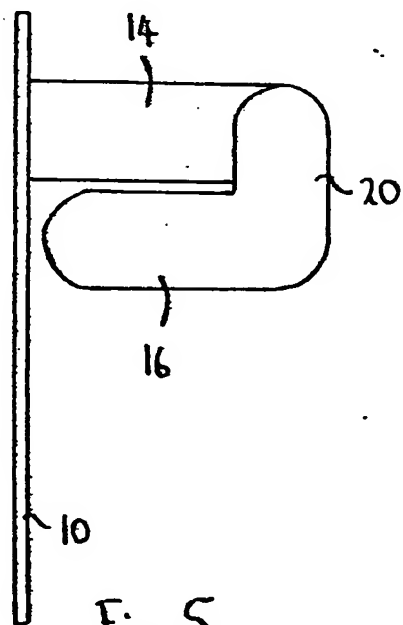


Fig. 5

## SPECIFICATION

## Door handle

5 This invention relates to door handles.

Known door handles of both the pull handle type and the type in which an arm is pivotable to release a latch present difficulties to elderly and infirm, particularly arthritic, persons who find such handles difficult to engage by hand. For this reason, the use of such handles in hospitals, old people's homes and similar institutions presents problems which this invention aims to overcome.

The invention provides a door handle having a portion for manual engagement which when, the handle is fitted to a door, is inclined to the horizontal at an angle which is preferably in the range of from 10° to 20°. More preferred angles lie in the range of from 13° to 17°, with substantially 15° being the most preferred angle.

The handle of the invention may be of the pull type which is fixed relative to the door and is pulled (or, occasionally, pushed) to open the door. The handle may also be of the type which has means for receiving an operating spindle of a door latch mechanism and in which an operating arm extends outwardly for pivotal movement about an axis of rotation, usually coincident with the axis of the operating spindle. In door handles of this type according to the invention, at least a portion of the operating arm is inclined downwardly in the outward direction, again preferably at an angle in the range of from 10° to 20°, more preferably in the range of from 13° to 17° and most preferably at substantially 15°.

The inclined portion of the door handle is conveniently in the form of a length of rod or bar which, in use, is spaced from the plane of the door by a cranked portion of the handle extending rearwardly for securement to the door, conveniently by way of a backing plate. The lower end of the inclined handle portion is preferably the lowest part of the handle and may itself have a cranked portion which extends rearwardly towards the plane of the door.

It has been found that handles according to this invention are particularly easily operated by a person who is elderly, arthritic or otherwise infirm and they are therefore of great advantage when used in hospitals, old people's homes and other similar places.

Two embodiments of the invention will now be described by way of example with reference to the drawings, in which:

Figure 1 is a front elevation of a pull handle orientated as when fitted to a door,

55 Figure 2 is a view of the left-hand end of the handle of Figure 1,

Figure 3 is a perspective view of a pivotable handle orientated as when fitted to a door,

Figure 4 is a front elevation of the handle of Figure 3, and

Figure 5 is a view of the left-hand end of the handle of Figure 4.

The pull handle of Figures 1 and 2 has a rectangular backing plate 10 and a handle 12 formed from circular-section bar. The backing plate is attachable to a door by screws passing through screw holes which are not shown. The handle 12 has upper and lower cranked end portions 14, 16 and between these an upper horizontal portion 18 and a portion 20 inclined downwardly at an angle  $\theta$  to the horizontal of 15°. The upper cranked end portion 14 extends rearwardly to the backing plate 10, to which it is immovably secured. The lower cranked end portion 16 is rounded at its rearward end which is spaced a short distance from the backing plate.

The pivotable handle of Figures 3 to 5 is of a very similar shape to the pull handle of Figures 1 and 2. Identical reference numerals have therefore been used to indicate its various parts. The main difference between the two handles is that the handle of Figures 3 to 5, being a pivotable handle, has, to accommodate the operating spindle of a door latch mechanism, a square-section socket in the upper cranked portion 14. The socket is not visible in the drawings. Further, the backing plate 10 of the pivotable handle is somewhat smaller than that of the pull handle.

In a modified form of the handle of Figures 1 and 2, the second cranked portion 16 also extends to the backing plate 10, to which it is immovably secured.

## CLAIMS

1. A door handle having a portion for manual engagement which, when the handle is fitted to a door, is inclined to the horizontal at an angle which is in the range of from 10° to 20°.
2. A door handle according to claim 1, in which the angle of inclination is in the range of from 13° to 17°.
3. A door handle according to claim 2, in which the angle of inclination is substantially 15°.
4. A door handle according to any preceding claim, in which the portion for manual engagement is a portion of an elongate part of the handle, the elongate part including a cranked portion which has a first limb which extends outwardly from a means for securement of the handle to a door and a second limb which extends from the first limb to one end of the engagement portion and makes an angle within the said range therewith.
5. A door handle according to claim 4, in which the elongate part has a further cranked end portion which extends from the other end of the engagement portion in the same direction as the first limb of the first cranked portion.
6. A door handle according to claims 4 or 5, in which the first limb of the first cranked portion is fixed relative to the securement means.
7. A door handle according to claims 4 or 5, in which the first limb of the first cranked portion is pivotable relative to the securement means about an axis extending along the first cranked portion.
8. A door handle substantially as hereinbefore described with reference to Figures 1 and 2 of the drawings.
9. A door handle substantially as hereinbefore described with reference to Figures 3 to 5 of the

drawings.

10. A door fitted with a handle according to any preceding claim, the manual engagement portion of the handle being inclined to the horizontal at an angle 5 which is in the range of from  $10^{\circ}$  to  $20^{\circ}$ .

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